

ABSTRACT

5 The invention includes an expression vector engineered to produce double-stranded
RNA (dsRNA) within a pest to be controlled. The dsRNA inhibits expression of at
least one gene within the pest, wherein inhibition of the gene exerts a deleterious
effect upon the pest. For example, inhibition of the gene can lead to cessation of
feeding, growth, or development and can cause death of the pest. In a preferred
10 embodiment of the invention the expression vector is a recombinant baculovirus that
transcribes sense and antisense RNA under the control of the baculovirus IE-1
promoter and hr5 enhancer. Preferred genes to be inhibited include essential genes,
genes involved in neurotransmission, and genes that are targets for conventional
pesticides. The invention discloses baculovirus transfer plasmids useful for producing
15 the recombinant baculovirus. The invention further discloses methods and formulations
involving the expression vector.

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